



Memorandum

Date: September 30, 1998
To: Water Quality Technical Group
From: Rick Woodard, Manager
Water Quality Program
Subject: Status Report

Since the last meeting of the Water Quality Technical Group (WQTG) on July 29, 1998, we convened the Bromide Expert Panel and produced a preliminary working draft of the revised Water Quality Program Plan. The following are details:

Bromide Expert Panel

To provide the CALFED Policy Group with information to help them better understand the significance of bromide in Delta drinking water supplies, a panel of independent, nationally recognized scientific experts was assembled to deliberate and to prepare a report to CALFED management providing recommendations. The panelists were chosen with the collaboration of the members of the WQTG. The attachment provides the names and primary areas of expertise of the panelists.

At the time of this writing, the panel report has not been received and, therefore, no official conclusions can be stated; however, the following summarizes some of the points of discussion.

Findings

- Delta waters contain considerably higher bromide concentrations than are typically found in drinking water supplies elsewhere in the nation.
- It is important to address concentrations of organic carbon as well as bromide in Delta waters because both react to produce unwanted chemical byproducts. It is also important to address fecal contamination in source waters since lower levels of pathogen concentrations will allow for less disinfection to provide a microbiologically safe water and thereby easier compliance with future DBP regulations.

CALFED Agencies

California
The Resources Agency
Department of Fish and Game
Department of Water Resources
California Environmental Protection Agency
State Water Resources Control Board

Federal
Environmental Protection Agency
Department of the Interior
Fish and Wildlife Service
Bureau of Reclamation
U.S. Army Corps of Engineers

Department of Agriculture
Natural Resources Conservation Service
Department of Commerce
National Marine Fisheries Service

- Some water treatment technologies appear promising, and considerable research into such technologies is underway. For example, membrane technology can remove both organic carbon and bromide to a significant degree, in addition to removing infective microorganisms. On the other hand, such technologies currently tend to be expensive, though research may improve the economic outlook.
- Stage I of the Disinfectants/Disinfection Byproduct Rule will become effective in November this year. Stage II is scheduled for the year 2002. These regulatory stages will occur well before a CALFED alternative could be fully implemented. Accordingly, it is desirable to develop a short-term strategy to enable these drinking water regulations to be met by agencies using Delta water.
- Recent research has identified hundreds of chemicals that could result from drinking water treatment, and whose potential to harm the health of humans is unknown. Of these, a significant number incorporate bromine. For this reason, it can reasonably be expected that the bromide issue will remain of concern with regard to safe drinking water, and that the D/DBP rules scheduled for 1998 and 2002 will probably not be the last that will be required to protect consumer's health.

Recommendations

- CALFED should be an active participant in the information collection process leading to drinking water regulations for disinfection byproducts.
- Sources of bromide other than the ocean should be further investigated with respect to the potential for source control measures.
- Additional modeling studies need to be performed to predict concentrations of individual disinfection byproduct chemicals that would result from the alternatives, because health effects of these chemicals appear to differ significantly.
- Evaluate new treatment processes for preventing or removing bromine-containing disinfection byproducts in drinking water.
- Work with urban agencies using Delta waters to develop common means of measuring and evaluating phenomena related to disinfection byproduct formation. This effort would result in broader capability to learn from, and profit by, the experience of individual agencies.
- Support efforts to refine the capability to perform and appropriately apply human health risk assessments.

- Monitor water quality parameters having potential for health concern in the foreseeable future.
- Develop cost tradeoffs for source water and treatment alternatives.
- Support investigations of measures to reduce organic carbon in Delta source waters.
- Support development of improved analytical methodology and development of an adequate information base on the presence of protozoans in Delta sources waters.

We expect the panel report in early October, and will make copies available to those of you who are interested in receiving one.

Preliminary Working Draft, Revised Water Quality Program Plan

Thanks very much to the following WQTG members who participated on our six work teams to help develop the revised WQPP:

Manucher Alemi*, Charlie Alpers, Elaine Archibald, Andy Bale, Bob Behee, Brian Bergamaschi, Roberta Borgonovo, Rich Breuer, Robert Brodberg, Kathy Brunetti, Kati Buehler, Elissa Callman, J.P. Cativiela, Vashek Cervinka, Ron Churchill, Deborah Condon, Val Connor*, Bill Crooks, Jay Davis, Peter Dileanis, Joe Domagalski*, Kevin Donhoff, Niel Dubrovsky, Dean Enderlin, Dale Flowers, Chris Foe, Dave Forkel, Tom Garcia*, Paul Gilbert-Snyder, Mike Gilton, Kathy Goforth, Russ Grimes, Mark Grismer, Les Grober, Alex Hildebrand, Glen Holstein, Jim Horen, Robert Hosea, Roger Hothem, Charlie Huang, Bob Hultquist, Rick Humphreys, Bill Johnston, Revital Katznelson, Charlie Kratzer, Ray Krauss, Stewart Krazner, Marshall Lee, G. Fred Lee, Peggy Lehman, Carl Lischeske, Gail Louis, Bruce Macler*, Don Marciochi, Tom Maurer, Molly Mayo, Mike McElhine, Joe McGahan, Eugenia McNaughton, Linda Mecurio, David Morrison, Doug Morrison*, Tom Mumley, Steve Murill*, Gail Newton, Doug Owen, Nigel Quinn, Stephen Reynolds, Kathy Russick, Jim Rytuba, Rudy Schnagl, Steven Schwarzbach, Steve Shaffer, K.T. Shum, Stella Siepman, Darell Slotton, Lynda Smith, Mitzi Speirs, Robert Speirs, Peter Standish-Lee, Mark Stephenson, Bryan Stuart, Tom Suchanek, Kim Taylor, Lenore Thomas, Larry Thompson, Avery Tindell, Tom To, Ray Tom, Jerry Trojan, John Turner, Wayne Verrill, John Winther, Roy Wolfe, Sue Yee.

* Team Leaders

Thanks also to the persons who participated in peer review of the document.

We distributed copies of the draft to active WQTG participants beginning on September 21, 1998, and requested comments by September 30. The draft is being simultaneously reviewed by the WQTG and CALFED agency staffs. Our intention is to incorporate the latest comments into the administrative review draft, which is due to the printer on October 23. (The administrative draft is formally reviewed by the CALFED agencies). On November 2, the CALFED agencies will receive the administrative draft, and will have until November 16 to provide comments, to which we will respond as appropriate. The final camera ready document is due to the printer on December 7, 1998, and public release is scheduled for December 31, 1998.

If you did not receive a copy of the preliminary draft and want one, some additional copies are available.

Although we have asked for comments on this draft by September 30 this is obviously a very short review period, and we will try (with no guarantee) to incorporate comments we receive later than this deadline. Our ability to incorporate later comments will depend on the total volume of comments we receive, on how much effort is involved in addressing them, whether the comments are consistent with CALFED agency comments and CALFED policies, and on the time required for report layout. We will, however, make every reasonable effort to incorporate your suggestions at every opportunity between now and December 7, after which further changes will not be possible.

Next Meeting

At the July 29 meeting of the WQTG, we discussed the possibility of having the next meeting in late September. It seems to me that it would be a better use of our collective resources if we postponed the meeting until such time as we need to get together to discuss matters and, meanwhile, devote our time to working on the documents. If WQTG members have other opinions on the need for a meeting or wish to receive a copy of the preliminary draft, please call me at (916) 657-4765, Judy Heath at (916) 653-2994, or Paul Marshall at (916) 654-4675.

A summary of the July 29, 1998 meeting of the Water Quality Technical Group is attached. Thanks again to the above named persons who contributed greatly to the current draft.

Attachment